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EXAMINER

HERNANDEZ, NELSON D

ART UNIT PAPER NUMBER

2622

DATE MAILED: 03/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/635,847	Applicant(s) KONISHI ET AL.	
	Examiner Nelson D. Hernandez	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 and 21 is/are rejected.
- 7) ☒ Claim(s) 19,20,22 and 23 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 March 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The Examiner acknowledges the amended claims filed on October 31, 2005. Claims 1-3 and 9 have been amended. Claims 13-23 have been added.

Response to Arguments

2. Applicant's arguments with respect to claims 1-3, 6, 9, 11 and 12 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1, 3, 9, 11, 12, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Boies, US Patent 5,426,732.**

Regarding claim 1, Boies discloses an image signal processor (See figs. 1: 26 and 3: 26) for performing image processing on a first image signal representative of an image of a subject field captured by an imaging device to produce a plurality of second image signals, comprising: a first memory (Fig. 1: 24) for storing the first image signal; a plurality of image processors (See fig. 3, processors 42, 44 and 46 in the display

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processing unit 26) for each performing image processing on the stored first image signal to produce the plurality of second signals, wherein all second image signals are different from each other (see images in display screen 30 shown in figs. 1 and 2, displaying the images with different image transformation done (image pan, tilt, and zoom transformations)); and a second memory (Fig. 1: 28) for storing each of the plurality of second image signals produced, wherein said plurality of image processors include types and parameters of the image processing are different between said plurality of image processors (image pan, tilt, and zoom transformations) (Col. 4, lines 21-55; col. 6, line 42 – col. 7, line 6).

Regarding claim 3, Boies discloses that each of said plurality of image processors (See fig. 3, processors 42, 44 and 46 in the display processing unit 26) corresponds to a plurality of display units (Figs. 1: 30 and 2: 30) unit which are provided for visualizing the images represented by the plurality of second image signals (See fig. 1 and 2) stored in said second memory (Fig. 1: 28), each of said plurality of image processors processing, according to the parameters, the plurality of second image signals to be displayed on one of the plurality of display units which corresponds to said image processor. (Col. 4, lines 21-55; col. 6, line 42 – col. 7, line 6).

Regarding claim 9, Boies discloses a method of processing a first image signal (Fig. 1: 24a) representative of an image of a subject field captured by an imaging device (Fig. 1: 12) to produce a plurality of second image signals, comprising the steps of: storing the first image signal in a memory (Fig. 1: 24); performing image processing on the stored first image signal (Using processors 42, 44 and 46 in the display processing

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unit 26 as shown in fig. 3) according to parameters of image processing different from each other (image pan, tilt, and zoom transformations) to produce the plurality of second image signals (see images in display screen 30 shown in figs. 1 and 2, displaying the images with different image transformation done (image pan, tilt, and zoom transformations)); and storing each of the produced plurality of second image signals in a memory (Fig. 1: 28) (Col. 4, lines 21-55; col. 6, line 42 – col. 7, line 6).

Regarding claim 11, Boies discloses that each of said plurality of image processors directly receives the stored first image signal as input (See fig. 1, image signals input directly to the image processor; see also fig. 3).

Regarding claim 12, limitations can be found in claim 11.

Regarding claim 14, Boies discloses an image processing method, comprising retrieving a first image data (fig. 1: 24a); generating a plurality of second image data (Fig. 1: 26a; see images in display screen 30 shown in figs. 1 and 2, displaying the images with different image transformation done (image pan, tilt, and zoom transformations)) based on the first image data; and storing each of the plurality of second image data into a memory (Fig. 1: 28), wherein a combination of imaging parameters and values applied to generate each second image data is unique for each second image data among the plurality of second image data (image pan, tilt, and zoom transformations) (Col. 4, lines 21-55; col. 6, line 42 – col. 7, line 6).

Regarding claim 15, limitations can be found in claim 11.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 2, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boies, US Patent 5,426,732 in view of Usami, US Patent 6,677,988 B2.**

Regarding claim 2, claim 2 is written in a Markush type by using the expression "include at least one selected from a group consisting of a change of brightness, a change of gradation change characteristics, a correction of a color temperature, a change of saturation, a change of a contour, a change of a compression ratio and a change of a black level of the first image signal stored in said first memory", meeting one species of a genus family anticipates the claimed subject matter. "A generic claim cannot be allowed to an applicant if the prior art discloses a species falling within the claimed genus." The species in that case will anticipate the genus. In re Slayter, 276 F.2d 408, 411, 125 USPQ 345, 347 (CCPA 1960); In re Gosteli, 872 F.2d 1008, 10 USPQ2d 1614 (Fed. Cir. 1989).

Boies discloses that the plurality of different image processors perform image processing on the first image signal stored in the first memory according to the parameters of image processing but does not explicitly disclose that the types of image processing performed by each of said plurality of image processors include at least one

selected from a group consisting of a change of brightness, a change of gradation change characteristics, a correction of a color temperature, a change of saturation, a change of a contour, a change of a compression ratio and a change of a black level of the first image signal stored in said first memory.

However, Usami teaches an image signal processor (host computer shown in fig. 1: 10), wherein an image is reduced and displayed a plurality of times in a display device (Figs. 1: 1; see image displayed a plurality of times in the display device 1 in fig. 3), each with different color temperatures, serving as parameters of colors (Col. 3, lines 3-50; col. 4, lines 15-67). Usami inherently teaches storing the plurality of second images after processing by teaching that the reduced images with different color temperatures are displayed, since they have to be stored in a memory or buffer before being transmitted to the display device.

Therefore, taking the combined teaching of Boies in view of Usami as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boies by having the image processors performing a change of brightness, a correction of a color temperature to the first image signal stored in said first memory. The motivation to do so would have been to realize color correction adapted to various observing environments, allowing the user to perform color adjustments as suggested by Usami (Col. 1, line 63 – col. 2, line 2).

Regarding claim 16, the combined teaching of Boies in view of Usami as applied to claim 2 teaches that the image parameters include luminance-chrominance (See Usami; col. 4, line 53 – col. 5, line 2).

Regarding claim 17, limitations can be found in claim 3.

7. Claims 2, 5, 7, 8, 10, 13, 16-18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boies, US Patent 5,426,732 in view of Moriya, US Patent 5,754,709.

Regarding claim 2, claim 2 is written in a Markush type by using the expression "include at least one selected from a group consisting of a change of brightness, a change of gradation change characteristics, a correction of a color temperature, a change of saturation, a change of a contour, a change of a compression ratio and a change of a black level of the first image signal stored in said first memory", meeting one species of a genus family anticipates the claimed subject matter. "A generic claim cannot be allowed to an applicant if the prior art discloses a species falling within the claimed genus." The species in that case will anticipate the genus. In re Slayter, 276 F.2d 408, 411, 125 USPQ 345, 347 (CCPA 1960); In re Gosteli, 872 F.2d 1008, 10 USPQ2d 1614 (Fed. Cir. 1989).

Boies discloses that the plurality of different image processors perform image processing on the first image signal stored in the first memory according to the parameters of image processing but does not explicitly disclose that the types of image processing performed by each of said plurality of image processors include at least one selected from a group consisting of a change of brightness, a change of gradation change characteristics, a correction of a color temperature, a change of saturation, a change of a contour, a change of a compression ratio and a change of a black level of the first image signal stored in said first memory.

However, Moriya teaches a method an apparatus for gradation correction and image edge extraction (See figs. 4(a) and 4(b)), comprising an image dividing means for dividing the image into dark and bright areas in order to perform gradation correction to de divided image, wherein the dark image is subjected to gradation correction (See fig. 4(b): 4) while the bright image is left as it is (this teaches that the second images as processed using different parameters). After the images are processed separately, they are synthesized by an image synthesizing means (Fig. 4(b): 5) and output by the image output means (Fig. 4(b): 7) (Col. 2, lines 35-65; col. 5, lines 16-50; col. 6, lines 6-25).

Therefore, taking the combined teaching of Boies in view of Moriya as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boies by having the image processors performing a change of gradation change characteristics to the first image signal stored in said first memory. The motivation to do so would have been to accurately extract the edges of a region within an image as suggested by Moriya (Col. 2, lines 43-48).

Regarding claim 5, limitations can be found in claim 2.

Regarding claim 7, Boies discloses an image signal processor (See figs. 1: 26 and 3: 26) for performing image processing on a first image signal (Fig. 1: 24a) representative of an image of a subject field captured by an imaging device (Fig. 1: 12) to produce a second image signal (Fig. 1: 26a), comprising: a first memory (Fig. 1: 24) for storing therein the first image signal; a plurality of image processors (See fig. 3, processors 42, 44 and 46 in the display processing unit 26) for each performing image processing different from each other (image pan, tilt, and zoom transformations), on the

stored first image signal to produce a third image signal different from each other (see images in display screen 30 shown in figs. 1 and 2, displaying the images with different image transformation done (image pan, tilt, and zoom transformations)); a second memory (Fig. 1: 26) for storing therein the third image signals produced, and wherein said plurality of image processors include types and parameters of the image processing such that at least one of the types and parameters of the image processing are different between said plurality of image processors (image pan, tilt, and zoom transformations) (Col. 4, lines 21-55; col. 6, line 42 – col. 7, line 6).

Boies does not explicitly disclose an image composer circuit for composing the third image signals to produce the second image signal.

However, Moriya teaches a method an apparatus for gradation correction and image edge extraction (See figs. 4(a) and 4(b)), comprising an image dividing means for dividing the image into dark and bright areas in order to perform gradation correction to the divided image, wherein the dark image is subjected to gradation correction (See fig. 4(b): 4) while the bright image is left as it is (this teaches that the second images are processed using different parameters). After the images are processed separately, they are synthesized by an image synthesizing means (Fig. 4(b): 5) and output by the image output means (Fig. 4(b): 7) (Col. 2, lines 35-65; col. 5, lines 16-50; col. 6, lines 6-25).

Therefore, taking the combined teaching of Boies in view of Moriya as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boies by having an image composer circuit for composing the third image signals to produce the second image signal. The motivation to do so would have

been to accurately extract the edges of a region within an image as suggested by Moriya (Col. 2, lines 43-48).

Regarding claim 8, limitations can be found in claim 7.

Regarding claim 10, claim 10 is written in a Markush type by using the expression "include at least one selected from a group consisting of a change of brightness, a change of gradation change characteristics, a correction of a color temperature, a change of saturation, a change of a contour, a change of a compression ratio and a change of a black level of the first image signal stored in said first memory", meeting one species of a genus family anticipates the claimed subject matter. "A generic claim cannot be allowed to an applicant if the prior art discloses a species falling within the claimed genus." The species in that case will anticipate the genus. In re Slayter, 276 F.2d 408, 411, 125 USPQ 345, 347 (CCPA 1960); In re Gosteli, 872 F.2d 1008, 10 USPQ2d 1614 (Fed. Cir. 1989).

Boies discloses an imaging apparatus comprising: an imaging device (Fig. 1: 12) for capturing an image of a subject field and producing a first image signal (Fig. 1: 12b) representative of the subject field; a first memory for storing therein the first image signal; a plurality of image processors (See fig. 3, processors 42, 44 and 46 in the display processing unit 26) for each performing image processing, different from each other, on the stored first image signal to produce the second image signal (Fig. 1: 26a) different from each other (see images in display screen 30 shown in figs. 1 and 2, displaying the images with different image transformation done (image pan, tilt, and zoom transformations)); a second memory (Fig. 1: 28) for storing therein the second

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image signals produced; and said plurality of image processors including types and parameters of the image processing such that at least one of the types and parameters of the image processing are different between said plurality of image processors (image pan, tilt, and zoom transformations) (Col. 4, lines 21-55; col. 6, line 42 – col. 7, line 6).

Boies does not explicitly disclose an image composer circuit for composing the second image signals to produce a third image signal, that the types of image processing including at least one selected from a group consisting of a change of brightness, a change of gradation change characteristics, a correction of a color temperature, a change of saturation, a change of a contour, a change of a compression ratio and a change of a black level of the first image signal stored in said first memory, the parameters of image processing being of the at least one selected from the group, whereby said plurality of image processors perform the image processing of the at least one selected from the group on the first image signal stored in said first memory according to the parameters of image processing.

However, Moriya teaches a method an apparatus for gradation correction and image edge extraction (See figs. 4(a) and 4(b)), comprising an image dividing means for dividing the image into dark and bright areas in order to perform gradation correction to de divided image, wherein the dark image is subjected to gradation correction (See fig. 4(b): 4) while the bright image is left as it is (this teaches that the second images as processed using different parameters). After the images are processed separately, they are synthesized by an image synthesizing means (Fig. 4(b): 5) and output by the image output means (Fig. 4(b): 7) (Col. 2, lines 35-65; col. 5, lines 16-50; col. 6, lines 6-25).

Therefore, taking the combined teaching of Boies in view of Moriya as a whole, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boies by having an image composer circuit for composing the third image signals to produce the second image signal and having the image processors performing a change of gradation change characteristics to the first image signal stored in said first memory. The motivation to do so would have been to accurately extract the edges of a region within an image as suggested by Moriya (Col. 2, lines 43-48).

Regarding claim 13, limitations can be found in claim 2.

Regarding claim 16, limitations can be found in claim 2.

Regarding claim 17, limitations can be found in claim 3.

Regarding claim 18, limitations can be found in claim 4.

Regarding claim 21, the combined teaching of Boies in view of Moriya as applied to claim 2 teaches dividing the first image data into a plurality of areas, each area differing in brightness (dark and bright areas); adjusting the brightness of the plurality of areas by a corresponding plurality of adjustment amounts (see Moriya, gradation correction means shown in fig. 4(b): 4); and combining the adjusted plurality of areas (See Moriya, fig. 4(b): 5). Grounds for rejecting claim 2 apply here.

8. **Claims 4, 6 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boies, US Patent 5,426,732.**

Regarding claim 4, Boies discloses that the plurality of display units include a display screen (Fig. 1: 30) and an image printer (See col. 5, lines 22-32).

Boies does not explicitly disclose the display screen as a CRT.

However, Official Notice is taken that the use of CRT monitors is notoriously well known in the art as an alternative of other types of displays (i.e. LCD, Plasma panel, etc) and would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Boies by having a CRT display as a display device with the motivation of reducing costs.

Regarding claim 6, Boies discloses that the second images can be recorded in storing means (Col. 5, lines 22-33).

Boies does not explicitly disclose that the second memory is detachably connected to the image signal processor.

However, Official Notice is taken that the use of detachably connected memory devices is notoriously well known in the art for recording data from image processor. The use of detachably connected memory devices (flash card, memory cards, floppy disk, CDs, etc.) is advantageous because allows to store image data for later use and/or for use the stored image data in a different device and would have been obvious to one of ordinary skill in the art to have the second memory is detachably connected to the image signal processor with the motivation of storing image data for later use and/or for use the stored image data in a different device.

Regarding claim 18, limitations can be found in claim 4.

Allowable Subject Matter

9. **Claims 19, 20, 22 and 23** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

10. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claim 19, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest determining whether a brightness of the first predetermined maximum or below a predetermined minimum; and performing a black level correction on the first image data if the brightness of the first image data is determined to be above the predetermined image data is above a maximum or below the predetermined minimum in combination with all the limitations in claim 14.

Regarding claim 22, the main reason for indication of allowable subject matter is because the prior art fails to teach or reasonably suggest that the step of adjusting the brightness includes reducing the brightness of the highlight area and increasing the brightness of the shadow area in combination with the existing elements of the present claim and all the limitations of claims 14 and 21.

Conclusion

11. Because of new grounds of rejection have been applied to unamended claims 4, 7, 8 and 10; this Office Action will be **Non-Final**.

Contact

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nelson D. Hernandez whose telephone number is (571) 272-7311. The examiner can normally be reached on 8:30 A.M. to 6:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Ometz can be reached on (571) 272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Nelson D. Hernandez
Examiner
Art Unit 2622

NDHH
March 25, 2006


TUAN HO
PRIMARY EXAMINER